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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/598,899	09/14/2006	Yasuhito Inagaki	09792909-6816	1813

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EXAMINER

LEE, DORIS L

ART UNIT

PAPER NUMBER

1796

MAIL DATE

DELIVERY MODE

04/09/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary**Application No.**

10/598,899

Applicant(s)

INAGAKI, YASUHIITO

Examiner

Doris L. Lee

Art Unit

1796

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17, 19-24, 26-33, 35-40 and 42-45 is/are pending in the application.
- 4a) Of the above claim(s) 1-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15-17, 19-24, 26-33, 35-40 and 42-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. The new grounds of rejection set forth below are necessitated by applicant's amendment filed on January 9, 2009. In particular, claims 15, 21, 30, and 37 have been amended to further include a limitation about the sulfonation rate. This limitation was not present in the original claims. Thus, the following action is properly made final.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior office action.
3. All outstanding objections and rejections, except for those maintained below, are withdrawn in light of applicant's amendment filed on January 9, 2009.

Claim Rejections - 35 USC § 103

4. **Claims 15-16, 19-23, 26-32, 35-39, and 42-45** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kitayama et al (WO 2001/27201, please see US 6,827,882 for English language equivalent)**.

The discussion forth in paragraph 10 of the Office Action mailed on October 9, 2008 and is incorporated here by reference.

Regarding the newly introduced limitation wherein the sulfonic acid groups and/or sulfonate groups are substituted at a sulfonation rate of 0.01% to 10%, it is the examiner's position that this is a product by process limitation, and patentability of said claim is based on the recited product and does not depend on its method of production. Since the product in the instant application is the same as product disclosed by the prior art, the claim is unpatentable even if the prior art product was made by a different

process. In re Marosi, 710 F2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983). See MPEP 2113.

5. **Claims 17, 24, 33 and 40** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kitayama et al (WO 2001/27201, please see US 6,827,882 for English language equivalent)** in view of **Yates et al (EP 0 213 466)**.

The discussion is set forth in paragraph 10 of the Office Action mailed on October 9, 2008 and is incorporated here by reference.

Response to Arguments

6. Applicant's arguments filed January 9, 2009 have been fully considered but they are not persuasive for the reasons as set forth below.

7. **Applicant's argument:** The sulfonation rate of 0.1 to 10% imparts distinctive structural characteristics on the resin composition because it determines the amount of sulfur that is added onto the aromatic polymer. The low sulfonation rate of the claims increases the flame retardant compatibility with the resin and lowers moisture absorption. Applicant highlights page 13 of the specification and also Kitayama col. 5, lines 34-36 as teaching away from the claimed limitation.

Examiner's response: *It is the examiner's position that the rate of sulfonation is indeed a product by process claim and has been rejected as such in the paragraphs above. As the claimed invention already indicates the amount of sulfonic acid groups and/or sulfonate groups (from 1 mol % to 100 mol %), the rate at which these groups are added do not determine the amount of sulfonation that is finally achieved in the polymer. As to page 13 of the specification, the examiner contends that there is no*

indication of sulfonation rate and its effect on the various properties of the composition, rather page 13 teaches that the amount of sulfur in the composition is critical. Also considering applicant's discussion of Kitayama col. 5, lines 34-36 teaching away from the sulfonation rate in the claimed invention, this citation also does not indicate any sulfonation rate, rather it talks about the ratio of acid base substitution in the aromatic vinyl resin for use in the invention falls between 10 and 100%.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doris L. Lee whose telephone number is (571)270-3872.

The examiner can normally be reached on Monday - Thursday 7:30 am to 5 pm and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vasu Jagannathan can be reached on (571)272-1119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Doris L Lee/
Examiner, Art Unit 1796

/Vasu Jagannathan/
Supervisory Patent Examiner, Art Unit 1796